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Fig. 1J3 is a graph, based on thin lens analysis, showing that the image distance at which light is focused through a thin lens is a function of the object distance at which the light originates;

Fig. 1J4 is a schematic representation of an imaging subsystem having a variable focal distance lens assembly, wherein a group of lens can be controllably moved along the optical axis of the subsystem, and having the effect of changing the image distance to compensate for a change in object distance, allowing the image detector to remain in place;

Fig. 1J5 is schematic representation of a variable focal length (zoom) imaging subsystem which is capable of changing its focal length over a given range; so that a longer focal length produces a smaller field of view at a given object distance;

Fig. 1J6 is a schematic representation of an illustrative embodiment of the image formation and detection (IFD) module employed in the PLIIM systems of the present invention, wherein various optical parameters used to model the system are defined and graphically indicated wherever possible;

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Fig. ~~1K~~ 1K1 is a schematic representation illustrating how the field of view of a PLIIM system can be fixed to substantially match the scan field width thereof (measured at the top of the scan field) at a substantial distance above a conveyor belt;

Fig. 1K2 is a schematic representation illustrating how the field of view of a PLIIM system can be fixed to substantially match the scan field width of a low profile scanning field slightly above the conveyor belt surface, by fixing the focal length of the imaging subsystem during the optical design stage;

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Fig. ~~1L~~ 1L1 is a schematic representation illustrating how an arrangement of FOV beam folding mirrors can be used to produce an expanded FOV that matches the geometrical characteristics of the scanning application at hand, when the FOV emerges from the system housing;

Fig. 1L2 is a schematic representation illustrating how the fixed field of view of an imaging subsystem can be expanded across a working space (e.g. conveyor belt structure) by rotating the FOV during object illumination and imaging operations;

Fig. 1M1 shows a data plot of pixel power density E_{pix} vs. object distance r calculated using the arbitrary but reasonable values $E_0 = 1\ W/m^2$, f = 80 mm and F = 4.5, demonstrating that, in a counter-intuitive manner, the power density at the pixel (and therefore the power